

TRANSFORMING THE ARMY

Initial Brigade Combat Team (IBCT)

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IBCT CONTEXT

➤ ***NOT JUST ABOUT A FEW IBCTs***

***SATISFIES THE NEAR
TERM STRATEGIC
REQUIREMENT***

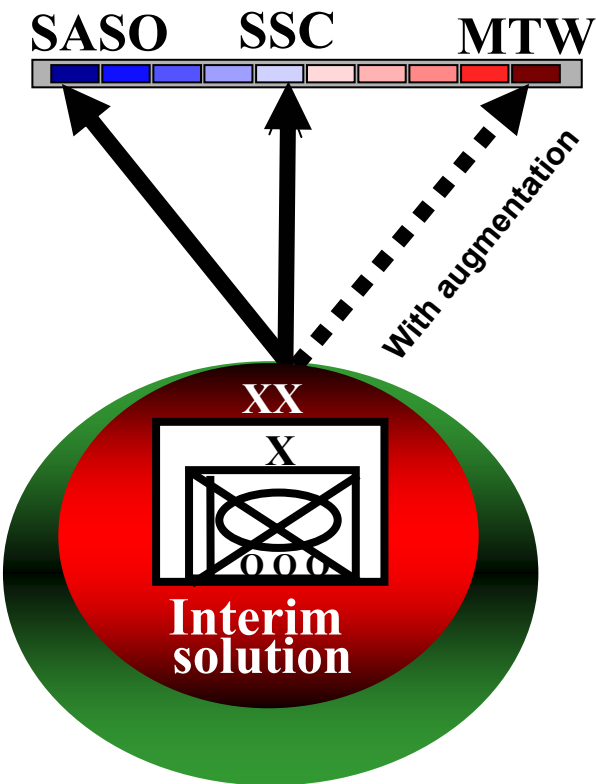
TRAIN – ALERT - DEPLOY

***SMALL
SCALE
CONTINGENCIES***

➤ ***BUT INITIAL STEPS ON THE ROAD TOWARD:***

- ***TRANSFORMING THE OPERATIONAL FORCE***
- ***TRANSFORMING THE INSTITUTIONAL ARMY***

IBCT Full Spectrum Mission Set



Early Entry
Offensive Orientation
Combat Brigade

- **Stability and Support Operations:**
 - Peace Keeping....manpower & RSTA intensive
 - Peace Enforcement...via combat capabilities
 - Protect joint and coalition PK/PE forces
 - Separate belligerents
- **Smaller Scale Contingencies:**
 - Rapidly deploys to prevent, contain, stabilize or terminate crisis. Alters conditions in our favor
 - Land force capable of determining the outcome
- **Major Theater Wars - with augmentation, Fights as part of a Division:**
 - Division main attack in complex / urban
 - Economy of Force, Reconnaissance, Screening, and limited Guarding actions
 - Fix and eliminate warfighting potential of by-passed enemy elements
 - Conduct supporting attacks
 - Follow-on force for exploitation and pursuit
 - Protect more vulnerable Rear Area assets such as Army Avn, ADA, C2, CS, & CSS

"Information Superiority For The Full-Spectrum Force"



What the IBCT Brings to the Battlefield



- Strategic Responsiveness...100% Tactical and Operational Mobility
- C-130 Deployable
- Combat Capable Upon Arrival
- Decisive Offensive Action...Dismounted Infantry Assault Enabled by Fires and Platforms...Internetted Combined Arms Company Teams
- Optimized for Close, Complex, or Urban Terrain...Austere Infrastructure
- Holistic Survivability and Force Protection
- Superior Situational Awareness
- Platform Commonality and Efficiencies, Reduced Footprint...Dynamic Resupply...Anticipatory Logistics
- Hybrid Teaming; Level of Autonomy
- Proactive, Responsive Counter-battery
- Full Spectrum Capable
- Reachback

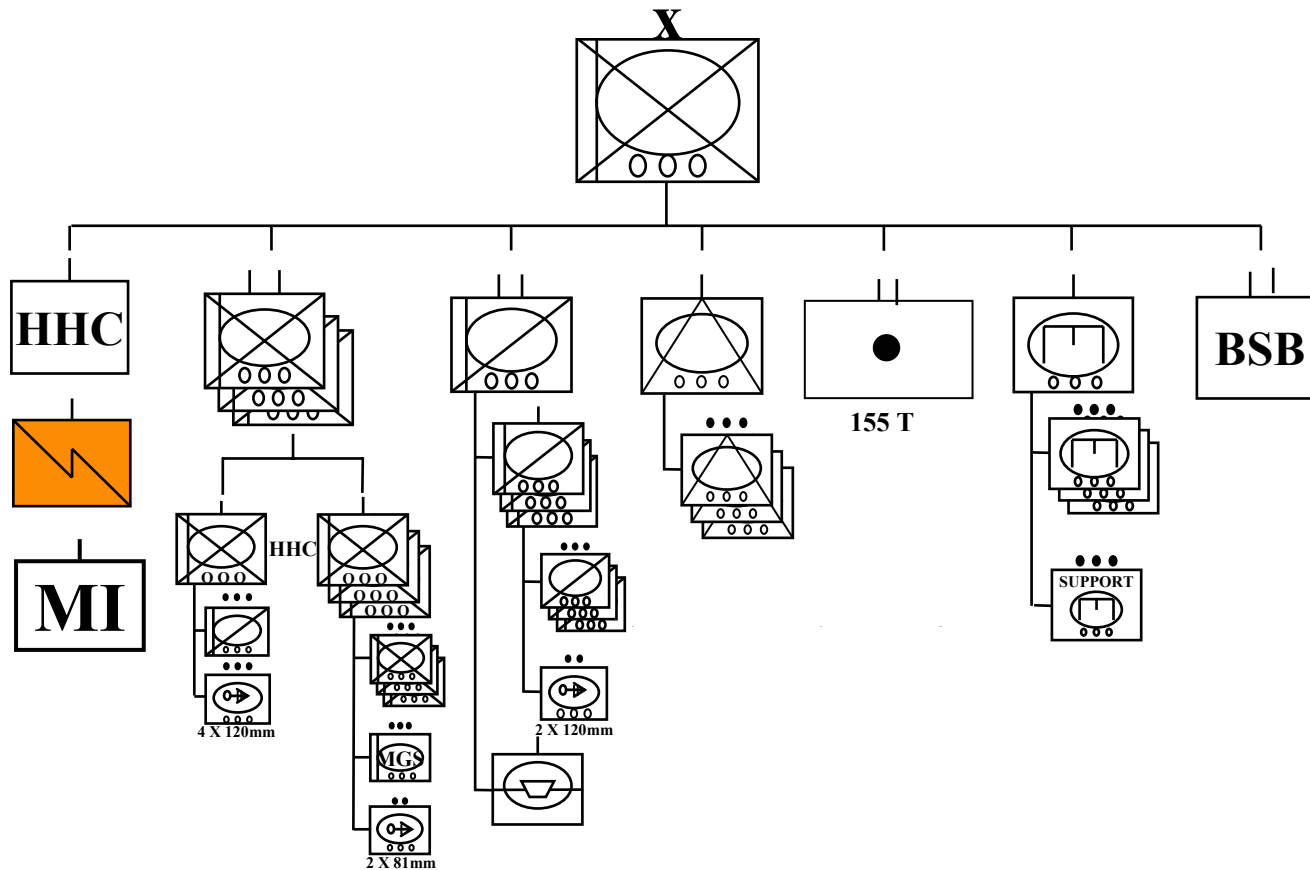
**Vanguard
To The
Objective Force**



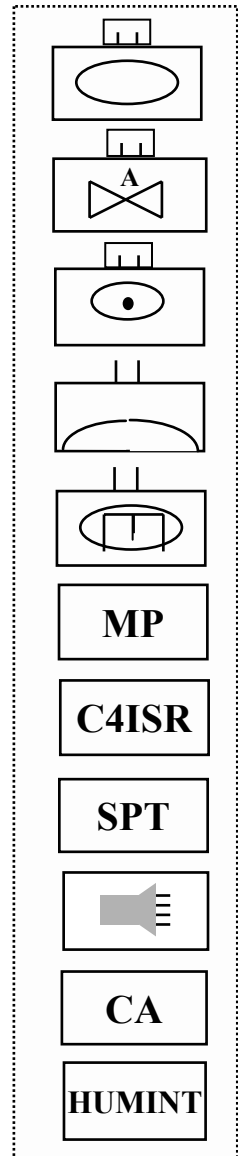
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IBCT ORGANIZATION



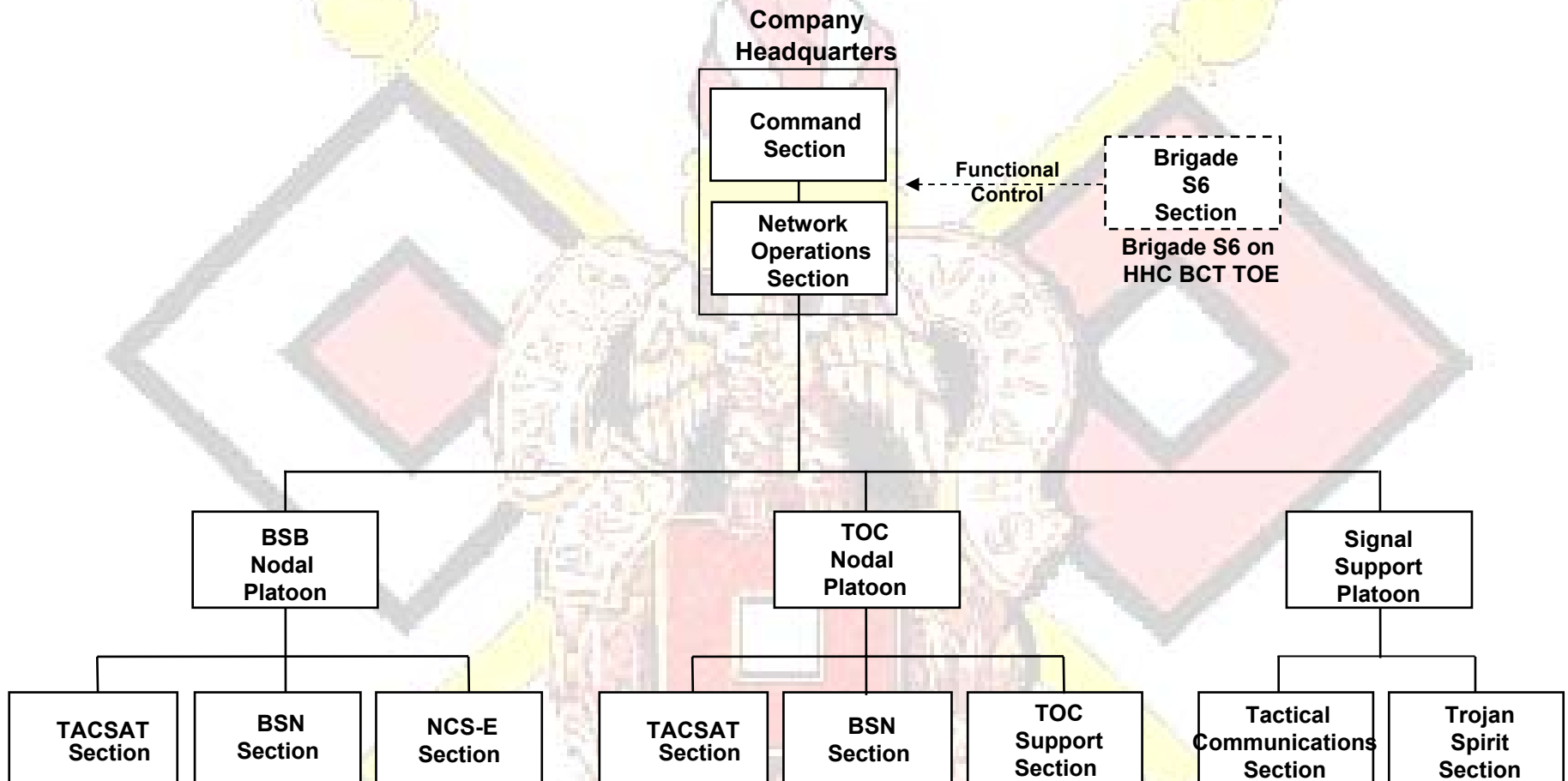
DIVISION/CORPS AUGMENTATION



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BSC ORGANIZATION



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Infantry Carrier Vehicle Performance Characteristics

Fire Suppression System

**85 Percent Parts
Commonality Across All
System Configurations**

Low Acoustic Signature

Self-Recovery Winch

C130 Transportable

Transports 9-Man Squad

5.7 Miles Per Gallon

**Low Sustainment
Cost**

Run-Flat Tires

**Command, Control,
Communication and Computers,
Intelligence, Surveillance
and Reconnaissance System Architecture**

**No Requirement For Heavy
Equipment Transport
to The Battlefield**

**14.5 mm All Around
Armor Piercing
Armor Protection**

**Superior Ride Quality/
Low Interior Noise
Reduces Crew Fatigue**

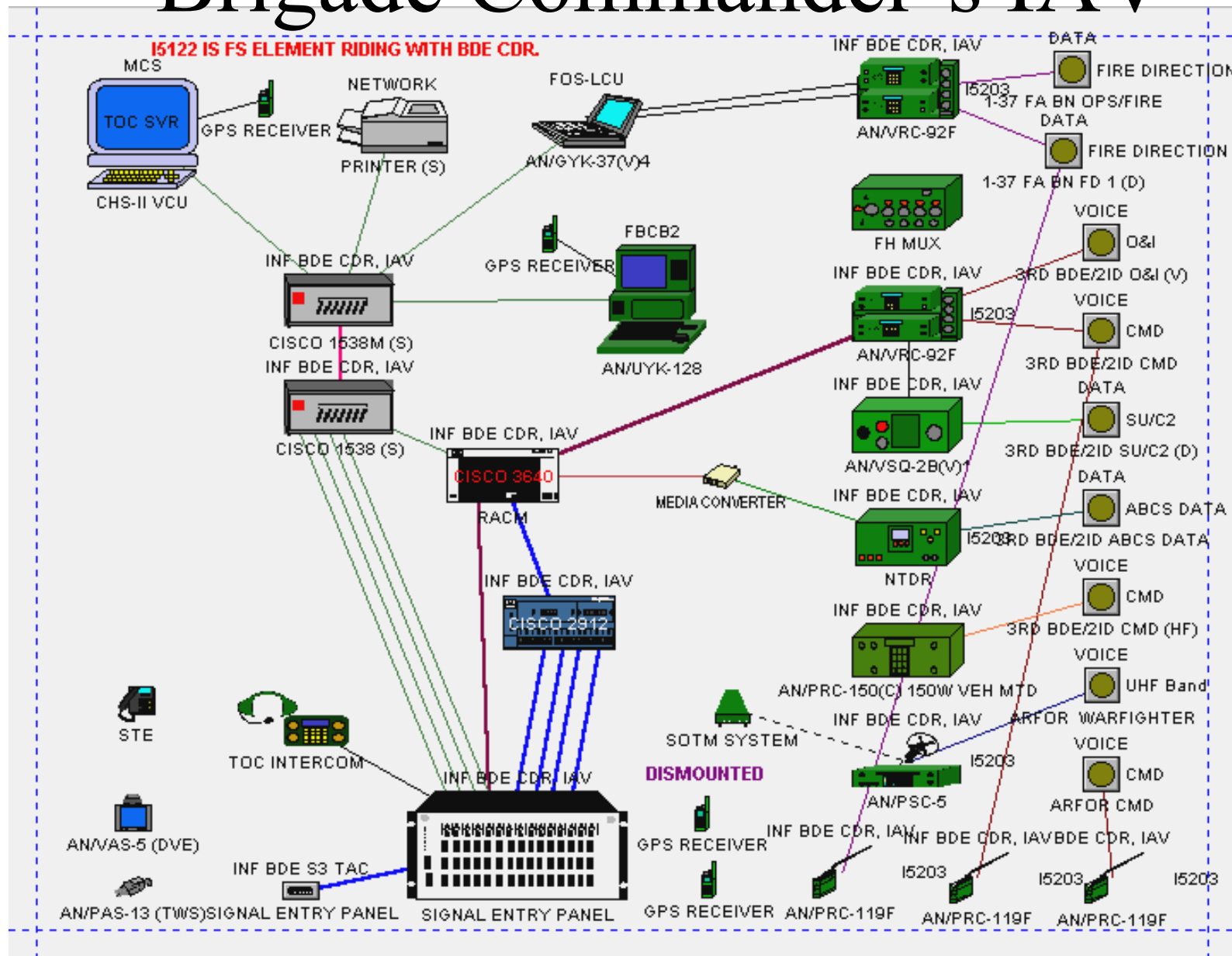
**Remote Weapons Station
MK 19/.50 cal Machine gun**



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Brigade Commander's IAV



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NETWORK-CENTRIC WARFARE: INFORMATION AS A COMBAT MULTIPLIER

Actions on Contact (FM 71-1)

- ✓ **Make Contact**
- ✓ **Develop The Situation**
- ✓ **Maneuver the Force**



- ✓ **Make Intelligence, Surveillance, Reconnaissance (ISR) Contact**
- ✓ **Develop Situational Understanding (SU) Out of Contact**
- ✓ **Maneuver Out of Contact**
- ✓ **Make Contact on Our Terms**

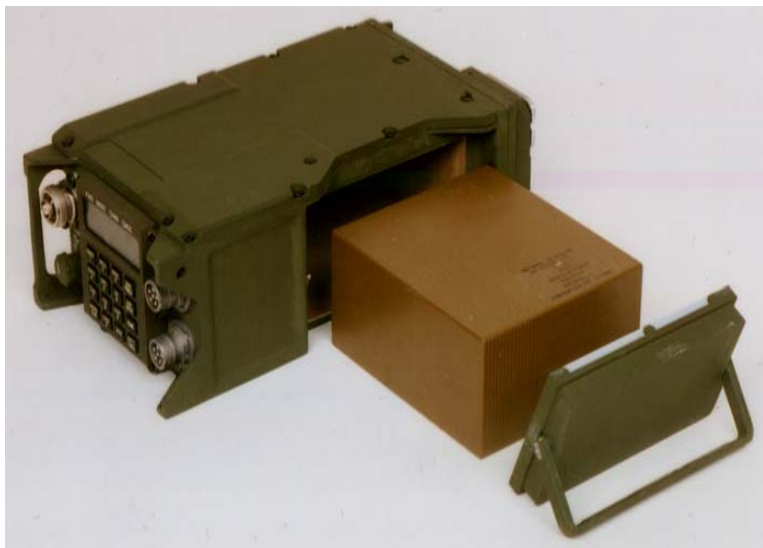
Referenced in Draft FM 17-96, RSTA Squadron

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COMMUNICATIONS DEVICES

SINCGARS ASIP Radio



- Weight 6.75lbs. each without battery
- Power Output - 5 watts
- Power Input - 24VDC
- 3.4"H x 5.3"W x 10.15"D
- Frequency Band: VHF 30-87.975 MHz
- Frequency Channels: 2320
- Frequency Hop (FH): Hops on 2 to 2320 freqs @100 hops/sec
- System Architecture: FM Voice or Digital Data
- Data Rate: To 16 kbps (ICOM w/FEC 4.8 kbps; SIP w/FEC 9.6 kbps), FSK
- Compatible with legacy SINCGARS

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COMMUNICATIONS DEVICES

EPLRS

ENHANCED POSITION LOCATION REPORTING SYSTEM

A Network, Not a Radio



- Weight - 17 lbs (26 lbs w/ batteries)
- Power Output - 100, 20, 03, or .04 W
- Power Input - 28 VDC
- Frequency Band: UHF, 420-450 MHz
- Frequency Hop (FH): 512 times per second over 8 frequencies
- System Architecture: Synchronous TDMA; Frequency and code division multiplexing
- Data Rate: Two types of Low Data Rate (LDR) needlines w/ rates to 14400 bps, Three types of High Data Rate (HDR) needlines w/ rates to 57+ Kbps
- ECM: Spread spectrum
- Navigation Services: More than 20, to include position, zone alerts, and time

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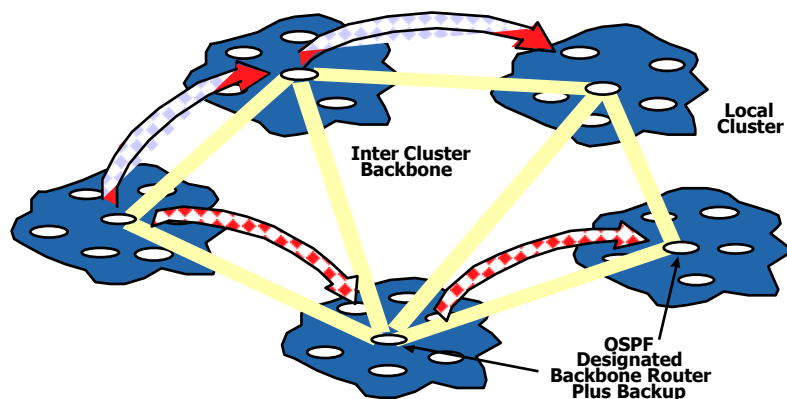


COMMUNICATIONS DEVICES



NTDR (Near Term Digital Radio): the TOC-to-TOC Data Hauler

A Network, Not a Radio



- Weight - 25lbs.
- Power Output - <20W
- Power Input - 28 V DC, < 2 Amps
- Frequency Band 225-450 MHz
- Channel Bandwidth: ~4 MHz (wideband)
- Channel Spacing: 15 MHz (wideband)
- Radio Size 4.5" x 0.9" x 15.8"
- Pt-To-Pt Data Rate 288 kbps
- 1-hop Range @20 W 12.5 km
- Data only radio, no voice

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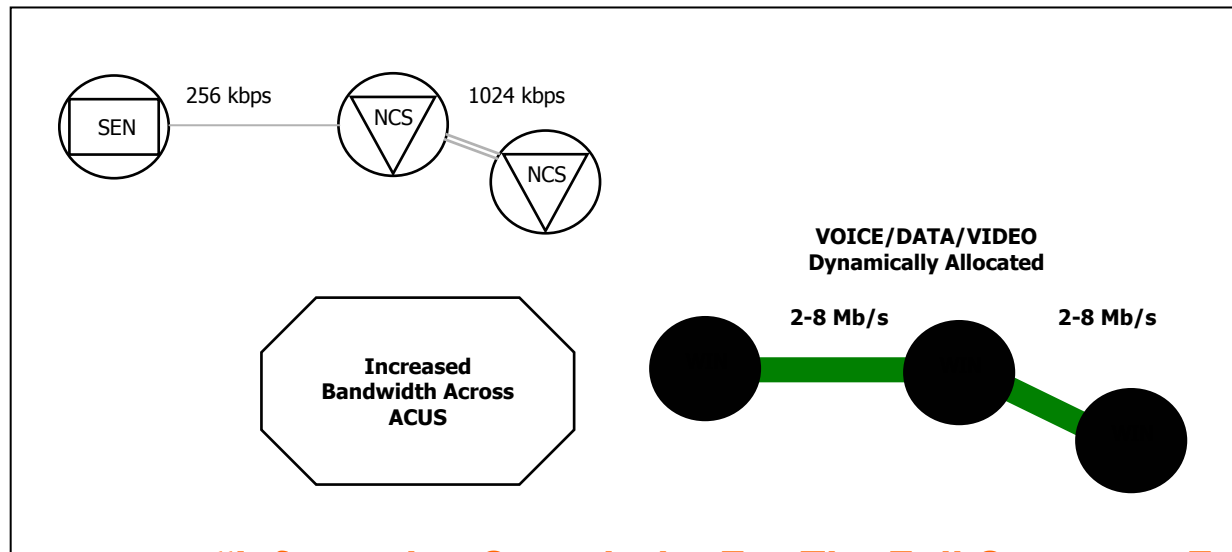


HIGH-CAPACITY LOS RADIO (HCLOS)



HCLOS Radio, AN/GRC-245

- + Provides for the increased functionality of the ATM Switch
- + Throughput = 2 to 8 Mb/s
- + Range increased from 25 to 40 km
- + Compatible with MSE



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Secure Mobile Anti-jam Reliable Tactical Terminal (SMART-T) AN/TSC-154



- TOTAL TERMINAL ON SINGLE HMMWV
- SUPPORTS LDR AND MDR SERVICES
- SUPPORTS VOICE AND DATA
- SUPPORTS UP TO 1.544 MBPS PER SERVICE
- MAXIMUM CAPACITY 2.24 MBPS
- RAPID SET-UP / TEAR-DOWN <30 MINUTES
- EMBEDDED TRANSEC AND GPS
- UNATTENDED OPERATION
- REMOTELY CONTROLLED UP TO ONE MILE
- INTEROPERABLE WITH OTHER MILSTAR TERMINALS

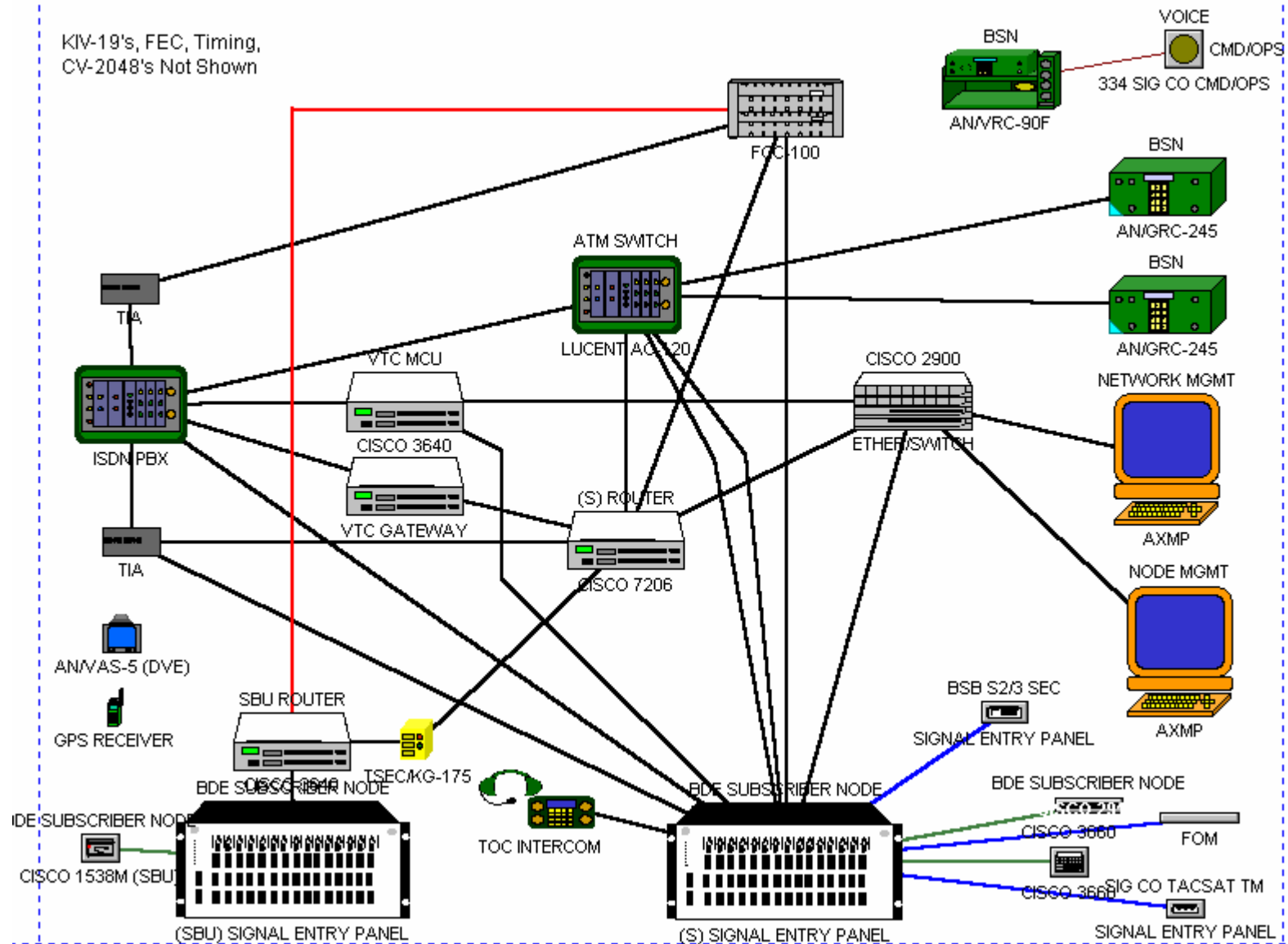


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BRIGADE SUBSCRIBER NODE (BSN)

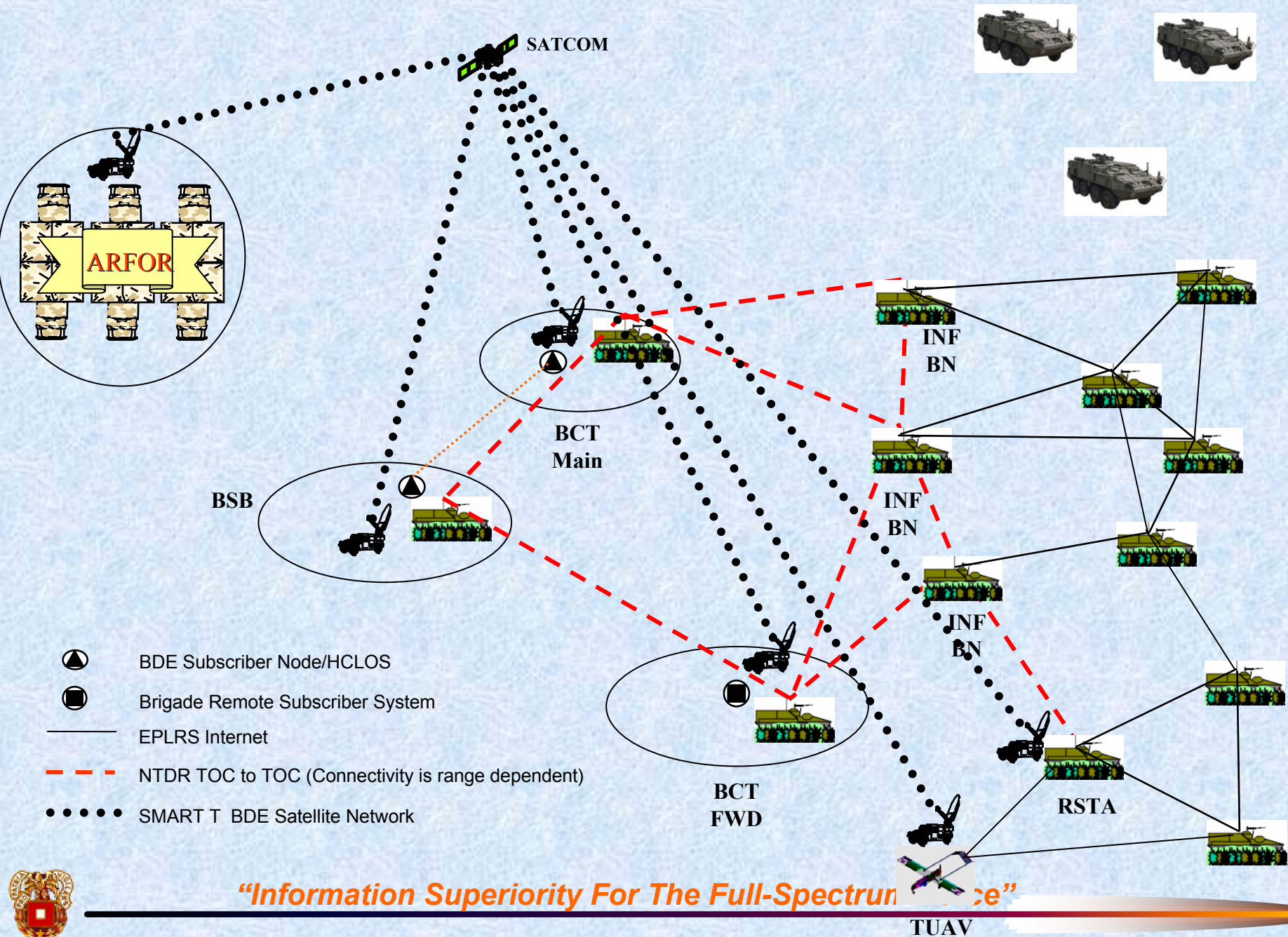
KIV-19's, FEC, Timing,
CV-2048's Not Shown



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The Network



FORCE XXI BATTLE COMMAND BRIGADE AND BELOW (FBCB2)



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FBCB2 Display Process

132155ZMAY98

G

R

Unclassified

0

0

9

0



Auto
Center

FIPR 9...

Top...

ADA-A5A

14RPV 23366 46936

F1

Map...

F2

Filters...

F3

Combat
Msgs...

F4

Long
Msgs...

F5

Status...

F6

Admin...

F7

Apps...

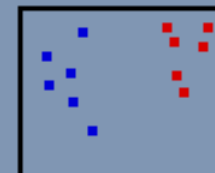
F8

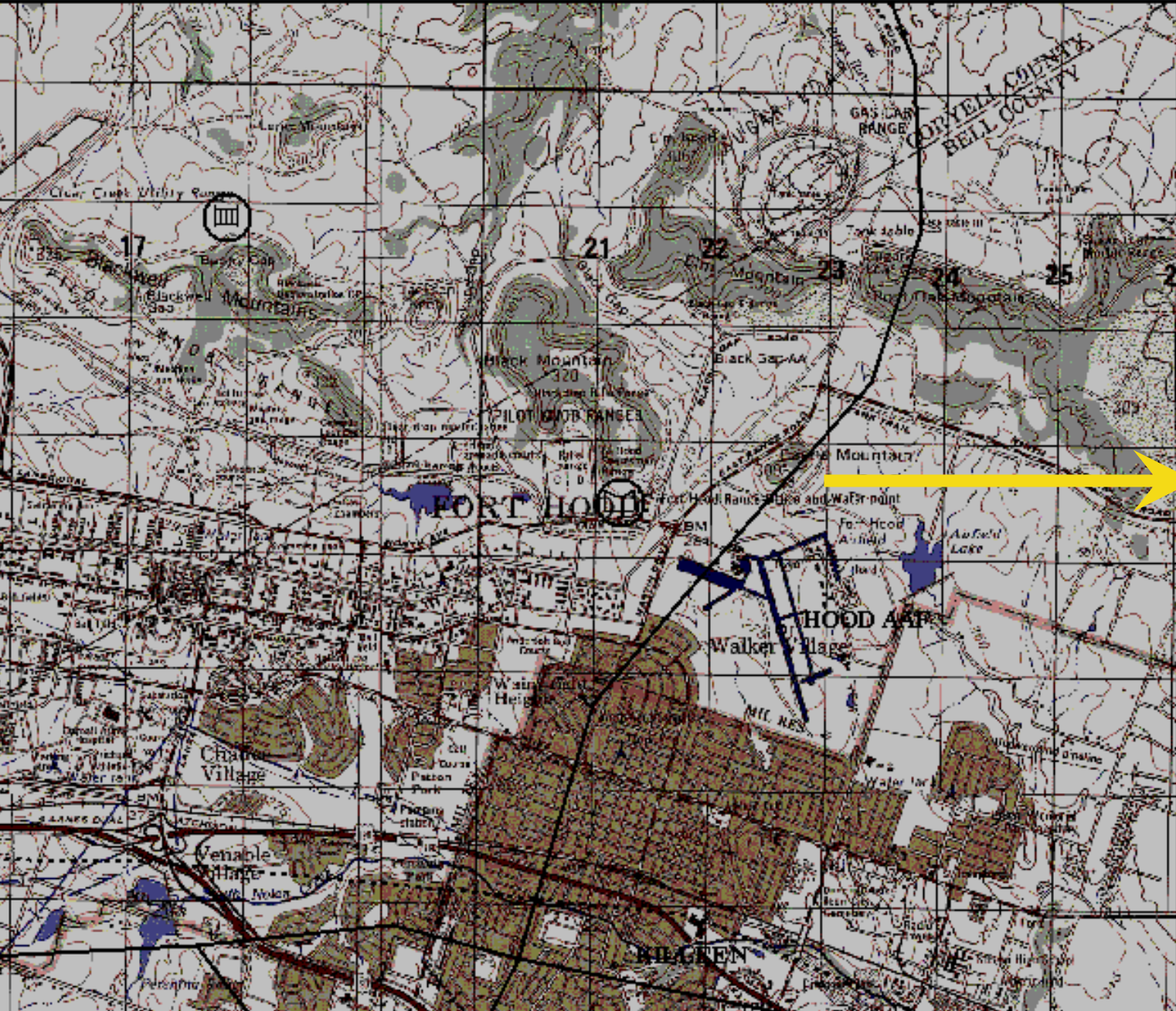
Help

1x

▼

21:55





Auto Center

FIPR 0...

Top...

XO-M2/B/1BN22IN

U

14RPV 24679 42738

F1 Map...

F2 Filters...

F3 Combat Msgs...

F4 Messages...

F5 Status...

F6 Admin...

F7 Apps...

F8 Help

1x

▼

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Combat Messages

SALT

MEDEVAC

NBC 1

Fire Mission

Check Fire All

SITREP

Fill LRF

Pick Up Location:

Amb Patients:

Ltr Patients:

Fill Loc

Marking:

MEDEVAC Priority:

Smoke

Urgent

Color:

NBC Contamination Type:

Red

☐ Pickup
Zone Hot

None

Security:

Radio Freq: Undefined

Enemy In Area- Armed Escort Req'd

Call Sign: Undefined

No messages sent this session.

Send

Save

Long Form
Message...

Close

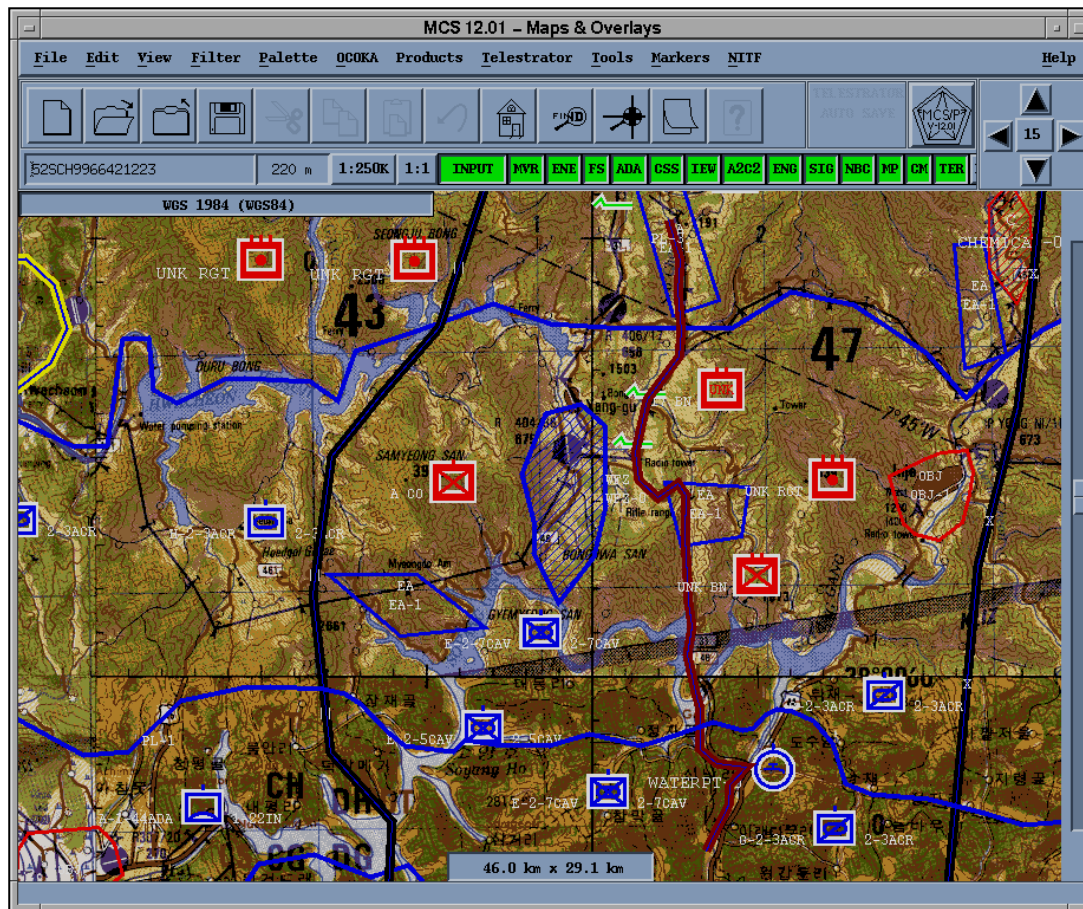
Help



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MANEUVER CONTROL SYSTEM (MCS)

- MAPS AND OVERLAYS

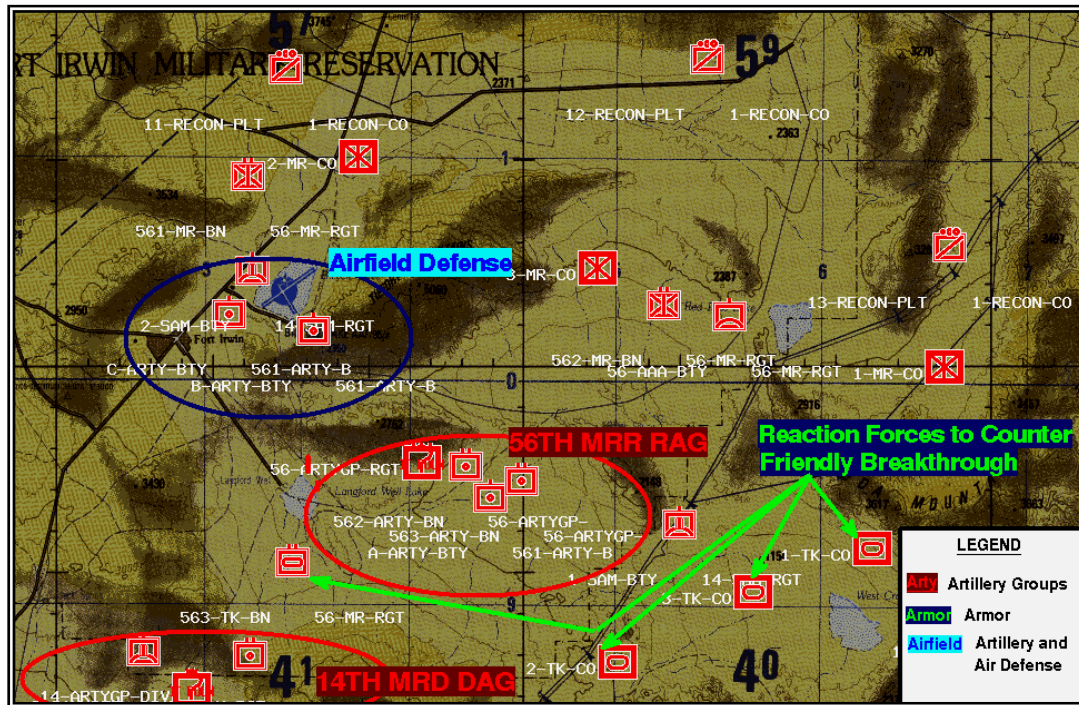


Graphic control measures and friendly and enemy unit locations superimposed on an electronic map background

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ALL SOURCE ANALYSIS SYSTEM REMOTE WORK STATION (ASAS RWS) - GRAPHIC INTSUM



**Graphic
Intelligence
Summary provided
by the G2/S2.
Depicts enemy
disposition and
intent.**

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ADVANCED FIELD ARTILLERY TACTICAL DATA SYSTEM (AFATDS) - FIRE SUPPORT COVERAGE

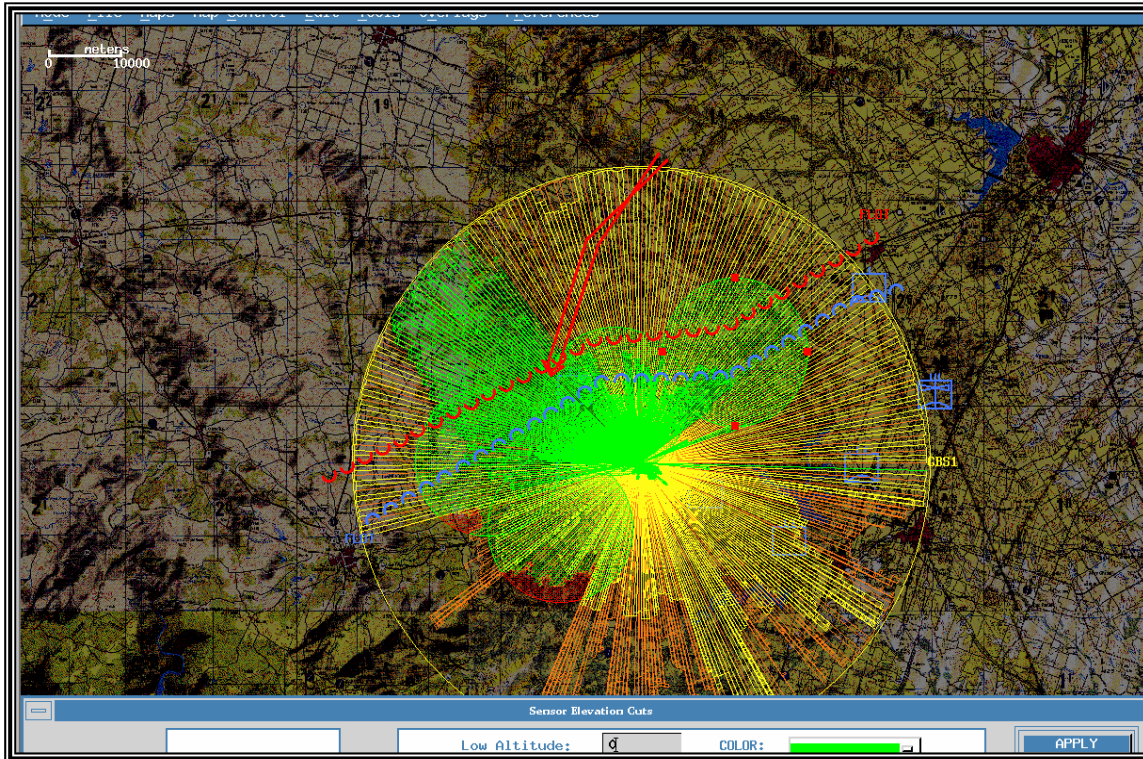


Fire support coverage shows current locations, range fans and areas of responsibility on an electronic map background

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AIR & MISSILE DEFENSE WORKSTATION (AMDWS) - MISSION PLANNING



**Line of sight
profiler aids in
weapon/sensor
placement using
digitized terrain
elevation data
and
weapon/sensor
capability**

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COMBAT SERVICE SUPPORT CONTROL SYSTEM (CCSCS) - 'GUMBALL' REPORT

STAT GUM

UNCLASSIFIED

CSSCS STATUS **CSG-001**

ACTUAL REPORTING TIMES QUIT...

UNIT... 4ID.M UIC... WAECFF AS-OF TIME(DTG IN ZULU): 21201820CT97

FROM: ? TO: ? TOTAL ELAPSED: ? NO. of LATE UNITS: 141/145

FROM: ? TO: ?

DAY... CURRENT CDR'S EVAL: **G** POSTURE: ? INTENSITY: ?

SUBORDINATE UNIT	PERS	CL I WTR	CL II CE	CL II P	CL III B	CL III P	CL V	CL VII	CL IX	TRAN	MED	OVER-ALL
4ID.M	G	G		G	G		G	A	G			G
1BDE4	G	G		G	G		G	A	G			G
2BDE4	G	G		G	G		G	A	G			G
3BDE4	A	G		G	G		G	A	G			G
4BDE4	G	G		G	A		G	R	G			G

REMARKS: ADD REMARK

SOURCE

☐ DEL ☐ C1 ☐ ☐ ☐

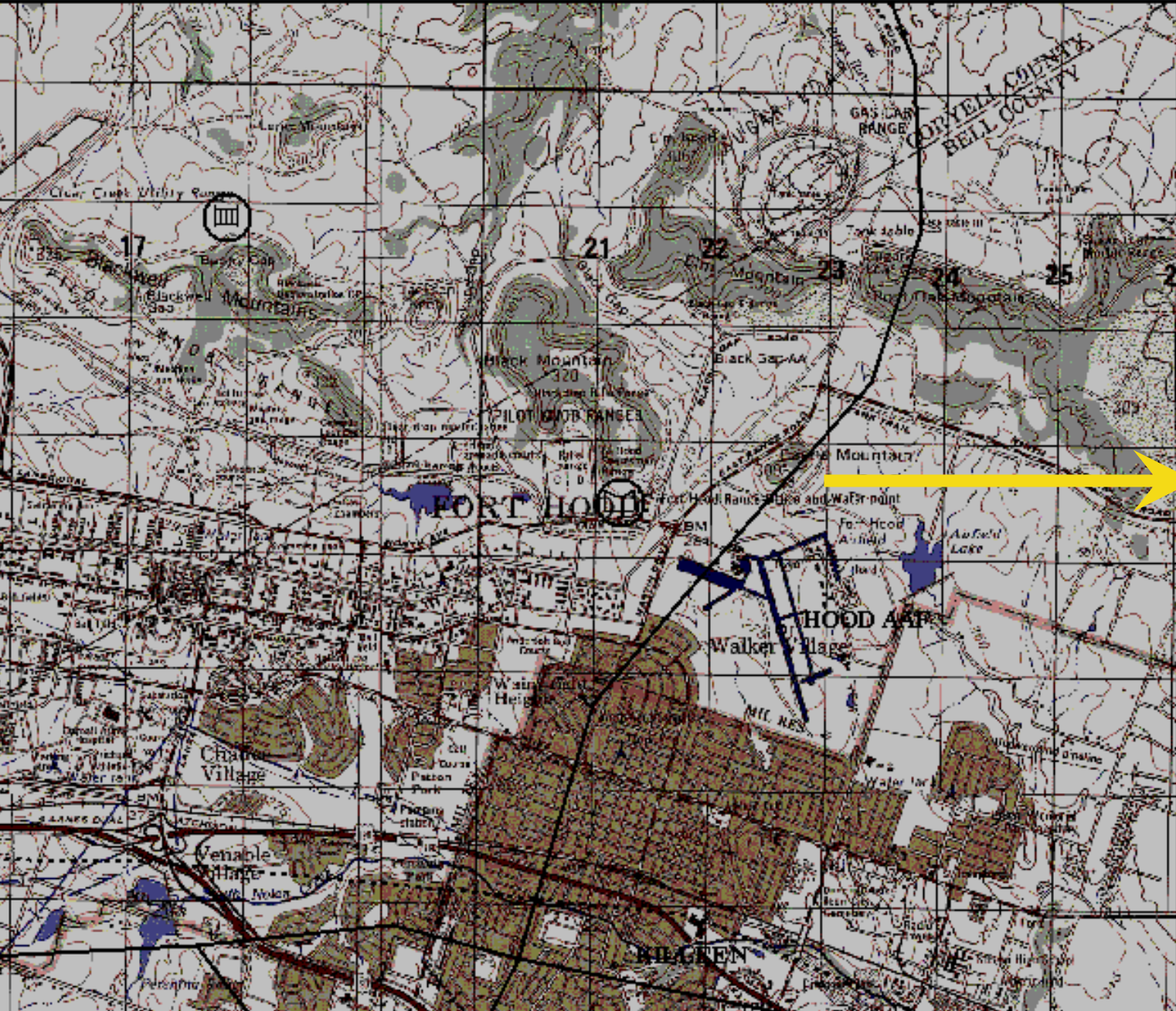
☐ DEL ☐ C1 ☐ ☐ ☐

UNCLASSIFIED

Color coded 'gumballs' indicate authorized / operational status by class of supply and unit

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Auto Center

FIPR 0...

Top...

XO-M2/B/1BN22IN

14RPV 24679 42738

F1 Map...

F2 Filters...

F3 Combat Msgs...

F4 Messages...

F5 Status...

F6 Admin...

F7 Apps...

F8 Help

1x

▼

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Training



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COHORT Training: 176th Signal Company



- Common Core / GPU (ASIP SINGARS, ANCD, PLGR-GPS, EPLRS, PSC-5 SPITFIRE, etc)
- Common Core / Networking essentials and TCP/IP
- Routers
- CISCO Academy
- Network Security
- Unix
- Windows NT
- SMART-T
- EPLRS T1 Course
- EPLRS Planners Course
- FBCB2 / MCS Maintainer Training
- Battlefield Spectrum Manager (D9) refresher training
- Local COMSEC Management System (LCMS) training for COMSEC Manager
- BSN Operators Training
- BSN Nodal Training
- RAPTer
- Tactical Internet Manager

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End State – A Multi-functional Signaleer!

Networking Essentials
Routers
TCP/IP

EPLRS T1 Course

EPLRS Planners
Course

SMART-T

ASIP SINCGARS
PSC-5 SPITFIRE
PLGR-GPS
EPLRS
ANCD

LCMS

CISCO
Academy

BSN Operators Training
BSN Nodal Training



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Questions?

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